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A curved jet model for the synchrotron emission of the BL Lac object PG 1553+113.

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We report on the results of a multifrequency campaign on the BL Lac object PG 1553+113 that was organized by the Whole Earth Blazar Telescope (WEBT) Collaboration in 2013 April-August. Nineteen optical, two near-IR, and three radio telescopes monitored the source to follow its behaviour at low energies during and around the high-energy observations by the MAGIC telescopes in April-July. A general bluer-when-brighter trend characterizes the optical emission.
We also analyse the UV and X-ray data acquired by the Swift and XMM-Newton satellites in the same period and compare them with previous observations.
The long XMM-Newton exposure reveals a curved X-ray spectrum, which shows a harder-when-brighter behaviour on long time scales.
In the spectral energy distribution (SED), the XMM-Newton near-UV spectrum is hard, while Swift data display a softer shape that is confirmed by previous HST-COS and IUE observations.
An estimate of the synchrotron peak through polynomial fits to the optical-X-ray SED suggests that it lies in the 4-30 eV energy range, with a general increase with X-ray brightness.
However, the UV and X-ray spectra do not connect smoothly. We propose an interpretation of the SED shape and variability in terms of orientation changes of the helical structure of an inhomogeneous jet.

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